

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. Cancelled.
2. Cancelled.
3. Cancelled.
4. Cancelled.
5. Cancelled.
6. (Currently Amended) A thermocycler device comprising:
a case;
a rotary plate housed in said case;
a plurality of heating blocks having a set temperature disposed in an interior of
said rotary plate; and
at least one vessel movable relative to said heating blocks and adapted to
contact at least two heating blocks;
wherein said temperature blocks are arranged in a geometric pattern configured
to allow said at least one vessel to be rotated into contact with each of said heating
blocks; and
~~The thermocycler device of claim 5, wherein said geometric pattern comprises a~~
central heating block having outside faces defining a hexagon and six outside heating
blocks disposed around the periphery of said rotary plate.
7. (Original) The thermocycler device of claim 6, wherein said central heating
block has a temperature of between about 90 and 95 degrees Celsius, three of said

outside heating blocks have a temperature of about 50 to 60 degrees Celsius, and the other three of said outside heating blocks have a temperature of about 70 to 75 degrees Celsius.

8. (Currently Amended) The thermocycler device of claim 46, wherein said rotary plate includes a plurality of rotating wheels adapted to rotate a plurality of vessels into contact with at least two of said heating blocks.

9. (Original) The thermocycler device of claim 8, wherein said temperature blocks are arranged in a geometric pattern configured to allow said vessels to be rotated into contact with each of said heating blocks.

10. (Currently Amended) A thermocycler device comprising:

a case;

a rotary plate housed in said case;

a plurality of heating blocks having a set temperature disposed in an interior of said rotary plate; and

at least one vessel movable relative to said heating blocks and adapted to contact at least two heating blocks;

wherein said rotary plate includes a plurality of rotating wheels adapted to rotate a plurality of vessels into contact with at least two of said heating blocks;

wherein said temperature blocks are arranged in a geometric pattern configured to allow said vessels to be rotated into contact with each of said heating blocks; and

~~The thermocycler device of claim 9, wherein said rotating wheels comprise tri-lobed wheels adapted to accept three vessels carrying cassettes.~~

11. (Original) The thermocycler device of claim 10, wherein said wheels are maneuvered by meshed gears having spindles associated with said wheels.

12.(Original) The thermocycler device of claim 11, wherein said rotary plate includes wobble wheels beneath said tri-lobed wheels.

13.(Original) The thermocycler device of 12, wherein said geometric pattern comprises a central heating block having outside faces defining a hexagon and six outside heating blocks disposed around the periphery of said rotary plate.

14.(Original) The thermocycler device of claim 13, wherein said central heating block has a temperature of between about 90 and 95 degrees Celsius, three of said outside heating blocks have a temperature of about 50 to 60 degrees Celsius, and the other three of said outside heating blocks have a temperature of about 70 to 75 degrees Celsius.

15.(Currently Amended) The thermocycler device of claim 410, further comprising a power source for said device.

16.(Currently Amended) The thermocycler device of claim 410, wherein said heating blocks are associated with a heating source.

17.(Original) A portable three-temperature thermocycler device for DNA amplification comprising:

- a case; said case having a hinged-lid to enable access to an interior area of said case and being constructed of shock-resistant material;

- a plurality of touchpad controls integral with a top surface of said case;

- a digital display on said top surface of said case, said display adapted to provide visual information;

- a LED display for providing information to a user of the device integral with said top surface of said case;

- a rotary plate disposed in said interior space of said case, said rotary plate having a honeycomb configuration;

a central heating block disposed centrally in said rotary plate, said central heating block having six faces defining a hexagon;

six outside heating blocks disposed around the periphery of said rotary plate and defining a hexagonal pattern;

six tri-lobed wheels, each lobe being configured to be matable with a cassette of capillary vessels, said six wheels being disposed between said central heating block and said outside heating blocks in a circular pattern, wherein said wheels are rotatable around said central block via cooperation with meshed gears on an underside of said rotary plate and being pivotable relative to said heating blocks such that each of said cassettes is capable of being contacted to each of said heating blocks in a repeatable cycle.

18.(Original) The device of claim 17, further comprising a wobble cam disposed between said gears and said tri-lobed wheels.

19.(Original) The device of claim 18, further comprising means for heating said heating blocks.

20.(Original) The device of claim 18, further comprising means for powering said device.